

# **HP 3000 Series 44 Computer System**

## **30087A Upgrade Kit Installation Guide**



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## LIST OF EFFECTIVE PAGES

The List of Effective Pages gives the date of the current edition and of any pages changed in updates to that edition. Within the manual, any page changed since the last edition is indicated by printing the date the changes were made on the bottom of the page. Changes are marked with a vertical bar in the margin. If an update is incorporated when an edition is reprinted, these bars are removed but the dates remain.

All pages in this manual are original first edition dated Mar. 1981.

## PRINTING HISTORY

New editions are complete revisions of the manual. Update packages, which are issued between editions, contain additional and replacement pages to be merged into the manual by the customer. The date of the title page of the manual changes only when a new edition is published. When an edition is reprinted, all the prior updates to the edition are incorporated.

First Edition. . . . . Mar 1981

## PREFACE

This guide is provided to assist in the installation of the HP 30087A Upgrade Kit. The instructions help ensure troublefree installations of the second card cage. Before starting the upgrade, be sure that all components for the kit are supplied and undamaged.

In upgrading the system, the following manuals may be helpful:

HP 3000 Series 44 Reference Training Manual, 30090-90001

HP 3000 Series 44 Installation Manual, 30090-90002

## 30087A UPGRADE TO HP 3000/44

The following procedure gives instructions for upgrading the HP 3000/44 from one card cage to two card cages.

Approximate time for accomplishing this task is 2 hours.

### TOOLS REQUIRED

Phillips screwdriver  
5/16-inch spanner wrench  
Diagonal pliers

### PROCEDURE

NOTE: Before starting the upgrade kit installation, be sure to inventory the contents of the kit to ensure that all parts are available and identified.

1. Shut system down (Note: To ensure integrity of customer's data, have customer back up system prior to arrival on site).
2. Set the PROCESSOR switch to off (down), located near the operator's right knee.
3. At the rear of the cabinet, set the main power circuit breaker to OFF.
4. Open and remove the system front panel access door.
5. Remove the front panel and the 8-inch panel located below the front panel.
6. At the front of the system, open both doors to gain access to the back of the card cage.
7. At the rear of the system, open and remove both card cage doors.
8. Remove all ADCC, GIC, and INP hood connectors which connect to the side junction panel and unbundle cables from that cable run. Move cables for easy access to the filler panel covering the space where card cage 2 will be installed.
9. Remove the filler panel covering card cage 2 area.

10. Unfasten the four cable retaining clamps on the bottom of card cage 2.
11. Position the card cage in the space provided and secure with 8 screws provided in upgrade kit.
12. Connect the power cables from the power supply to their respective jacks on the Power Control Module (PCM). See figure 1.
13. Secure the power cables in the four cable retaining clamps.
14. Install the card cage grounding straps, card cage retaining strap, and backplane interconnecting cables as shown in figures 1 and 2.
15. Connect the temperature sensor cable between the sensor on card cage 1 to the sensor on card cage 2. The sensors are located at the top of each card cage. The cable is one foot long and is color-coded red and black with white connectors.
16. Remove the rear junction panel.

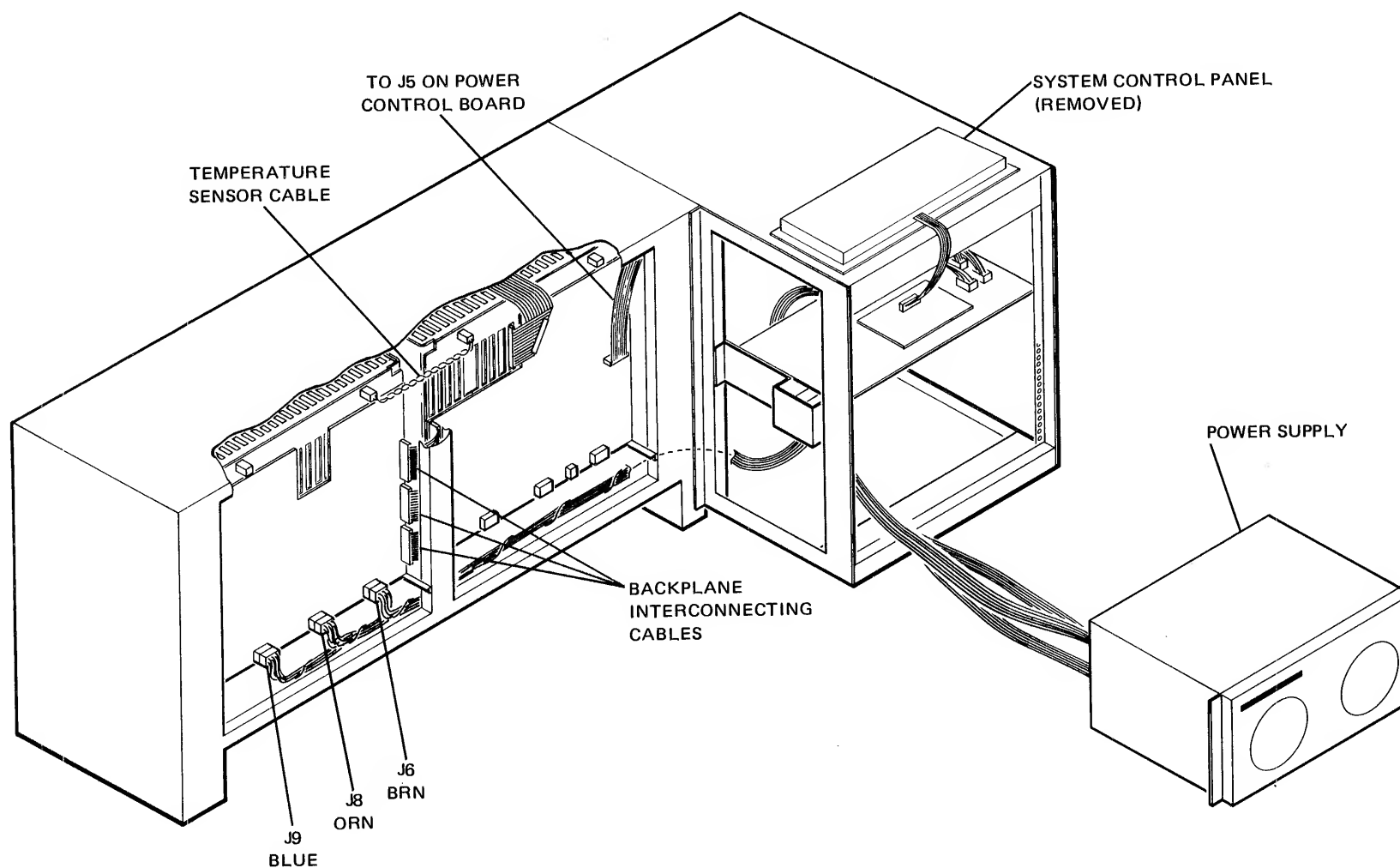
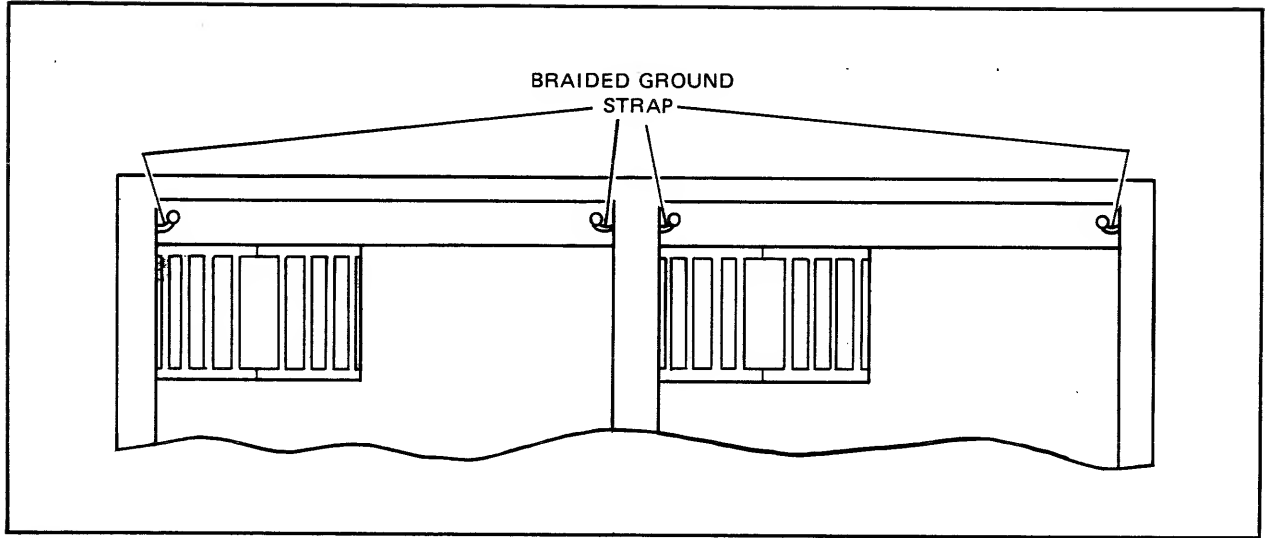


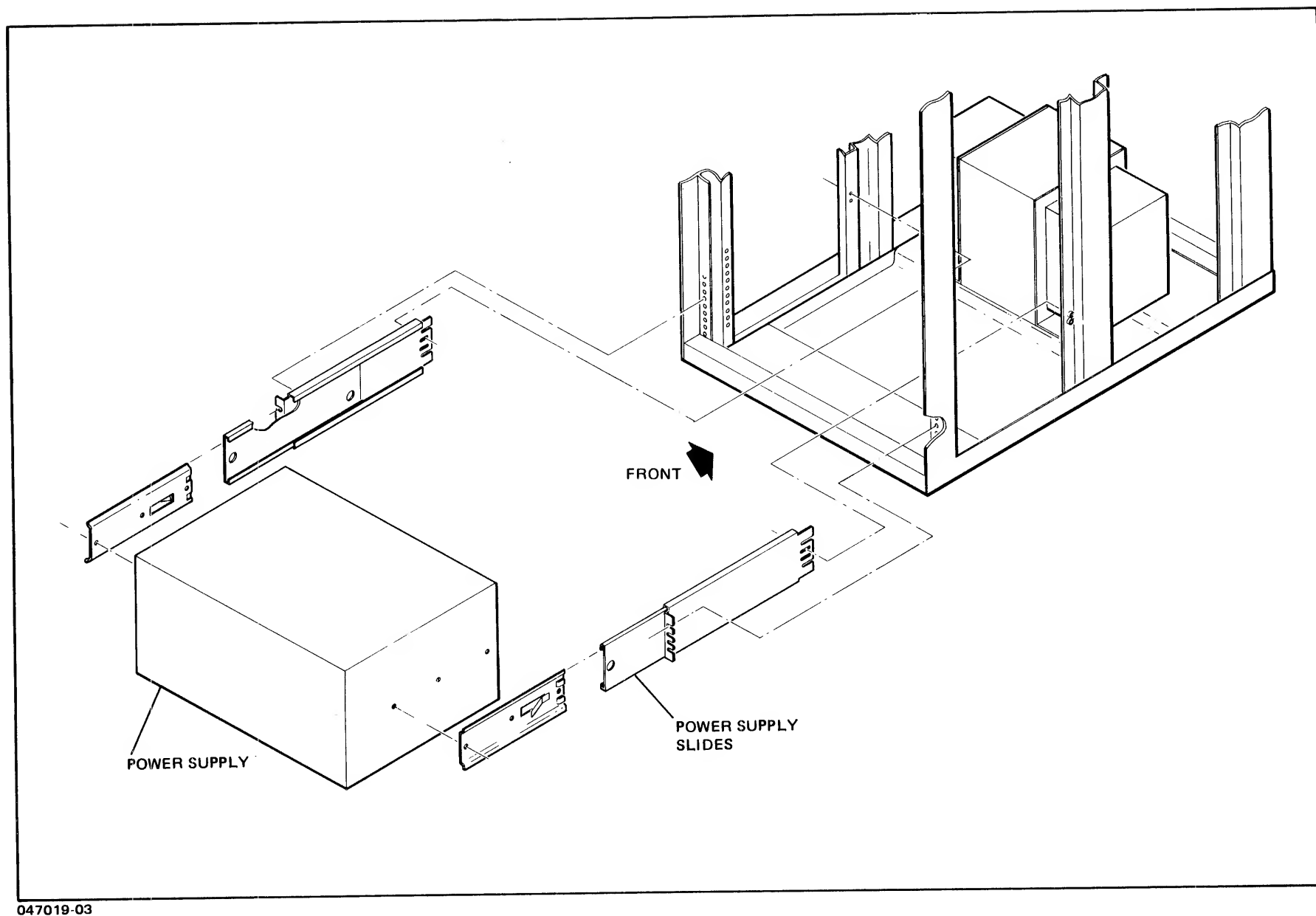
Figure 1. System Cabling





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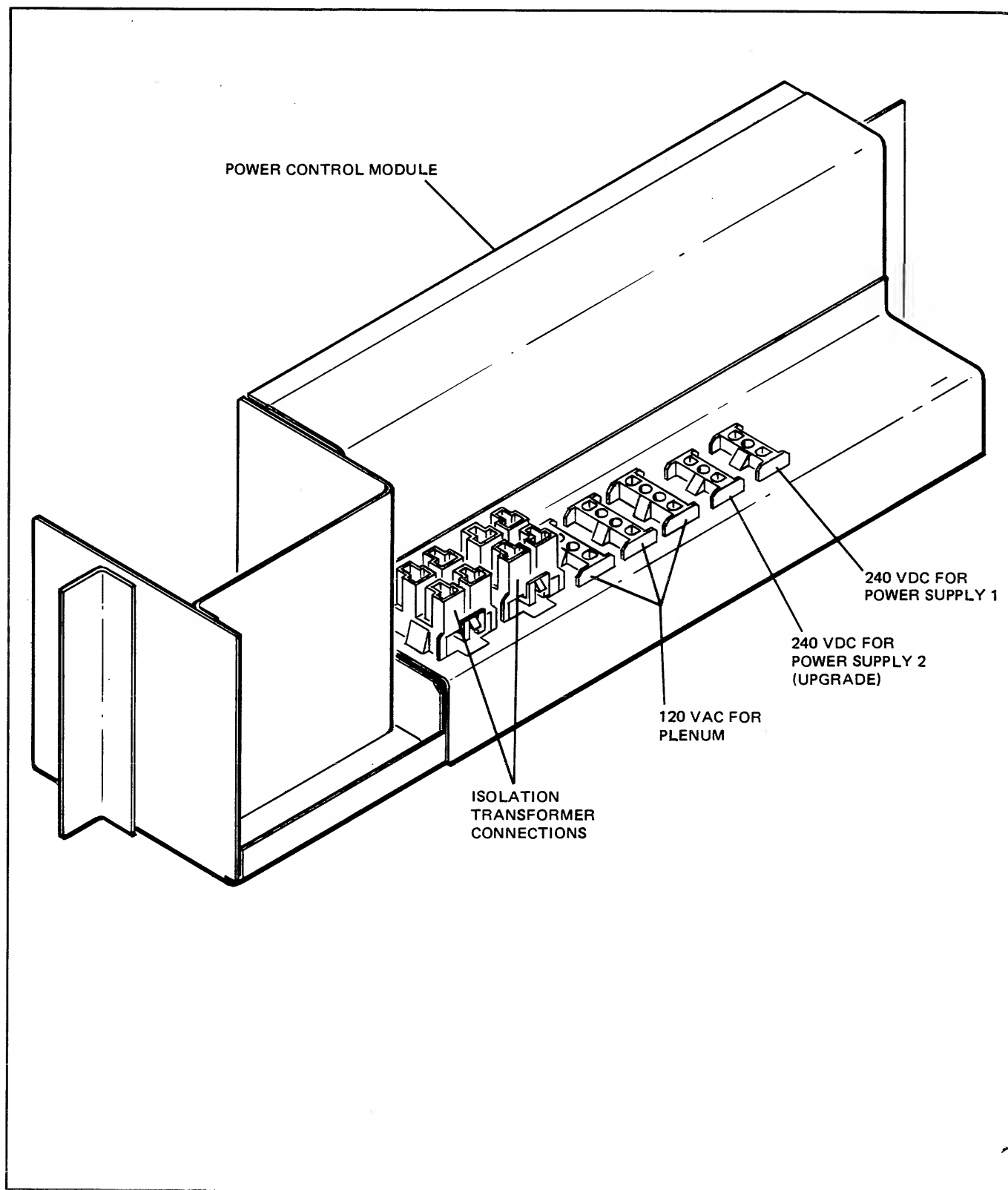
Figure 2. Card Cage Grounding



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Figure 3. Power Supply Installation

17. Install power supply rails as shown in figure 3. Ensure that the rails are centered in space provided for the power supply and that they are level.
18. Unbundle the gray-white cable assembly connected to the PROCESSOR switch and extend outward to the front power supply opening.
19. Connect the red-green-black AC power cable, part no. 30070-60024, to J6 on the power distribution unit, and feed unconnected end out through front power supply opening.
20. Extend power supply rails.
21. Install the power supply, part no. 30090-60035, on the rails. Keep the power supply fully extended.
22. Connect the power cables as follows:  
  
Blue cable to J9 Brown cable to J6 Orange cable to J8
23. On the PROCESSOR switch, unwrap the gray-white wire and connect the loose end to J10 on the back of the power supply unit.
24. Connect the 240 VAC cable from the power distribution unit to the power supply unit. (See figure 4.)
25. Slide the power supply into the cabinet and ensure that cables are free from obstructions.
26. Secure power supply front panel to chassis with four retaining screws.
27. Replace rear junction panel.
28. Connect air plenum power cable, part no. 30070-60051, to receptacle at the rear of card cage 1.
29. Connect the air plenum power cable to the receptacle on the rear of the upgrade air plenum chamber, and install the air plenum chamber. Secure with four retaining screws.
30. Lay the air plenum power cable in the respective cable trough clamps and secure.



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Figure 4. Power Supply Connection to PCM

31. Reconnect all cables previously removed.
32. If there are no memory array boards to add in the card cage, set the memory load switch to NO MEMORY. If memory array boards are installed, ensure that the switch is set to MEMORY.
33. Install any additional ADCC, GIC, or LP interface boards.
34. On the power distribution unit, set the main circuit breaker to ON.
35. Set the PROCESSOR switch to ON.

NOTE: The power supply LEDs are located on the card cage backplanes. The red (+12V) and yellow (+12M) LEDs on both backplanes should be lit. Before closing the card cage doors, ensure that all fans are operating.

36. Measure the voltages on the newly installed power supply and adjust the voltages as necessary. (Refer to the Reference Training Manual, part no. 30090-90001.)
37. Run the CMP/System SelfTest diagnostic, and then run all other appropriate diagnostics for any newly installed assemblies.
38. Close and lock all doors.
39. Coolstart system from the system disc, then reconfigure the system to ensure that the system is properly configured.
40. Ensure that all leftover materials are removed or discarded.